

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In application of: Bryan Wolf

Applicant's Reference: IGT1P064/P-40

Application No.: 10/006,496

Examiner: UNASSIGNED

Filed: December 5, 2001

Group: UNASSIGNED

Title: METHOD FOR REPRESENTING A GAME
AS A UNIQUE NUMBER

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, Washington, DC 20231 on January 14, 2002.

Signed: _____

Leslie Russell

Separate Letter to the Official Draftsman

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Enclosed are the formal drawings for the above-identified patent application. If the Draftsman has any question concerning the corrected drawings, he or she is respectfully requested to contact the undersigned.

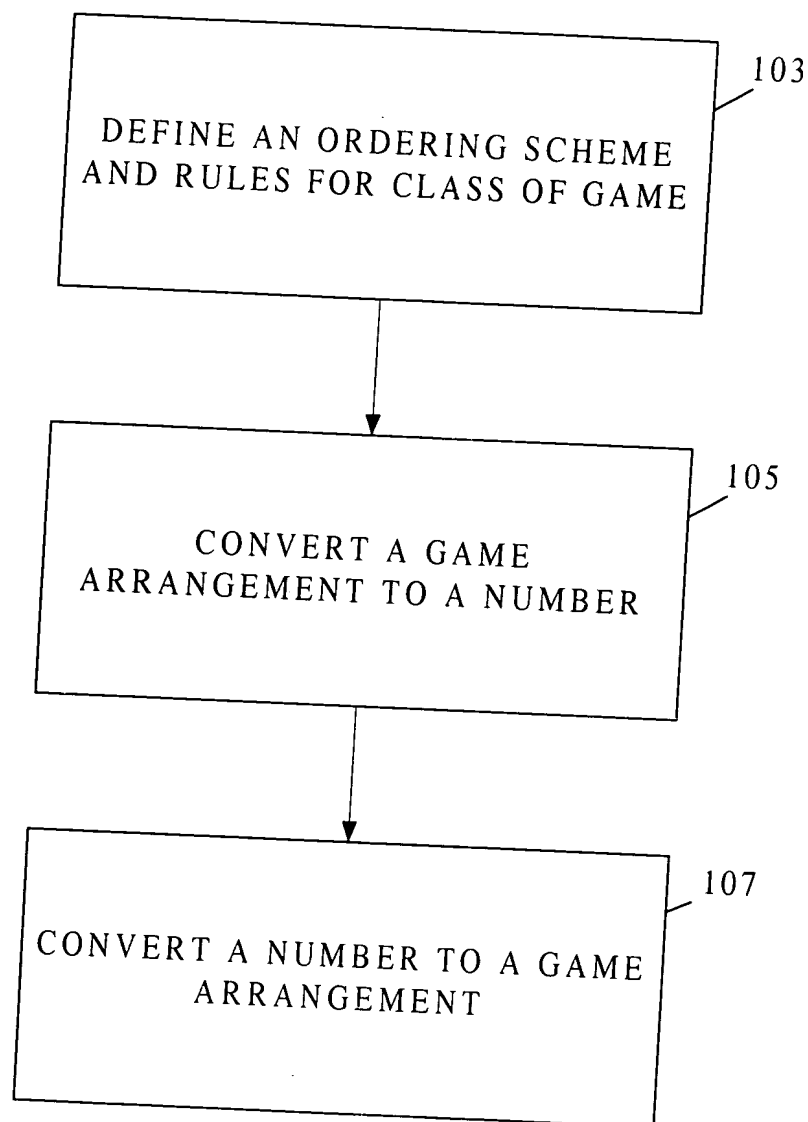
Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

Jeffrey K. Weaver
Registration No. 31,314

P.O. Box 778
Berkeley, CA 94704-0778
(510) 843-6200

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**Figure 1**

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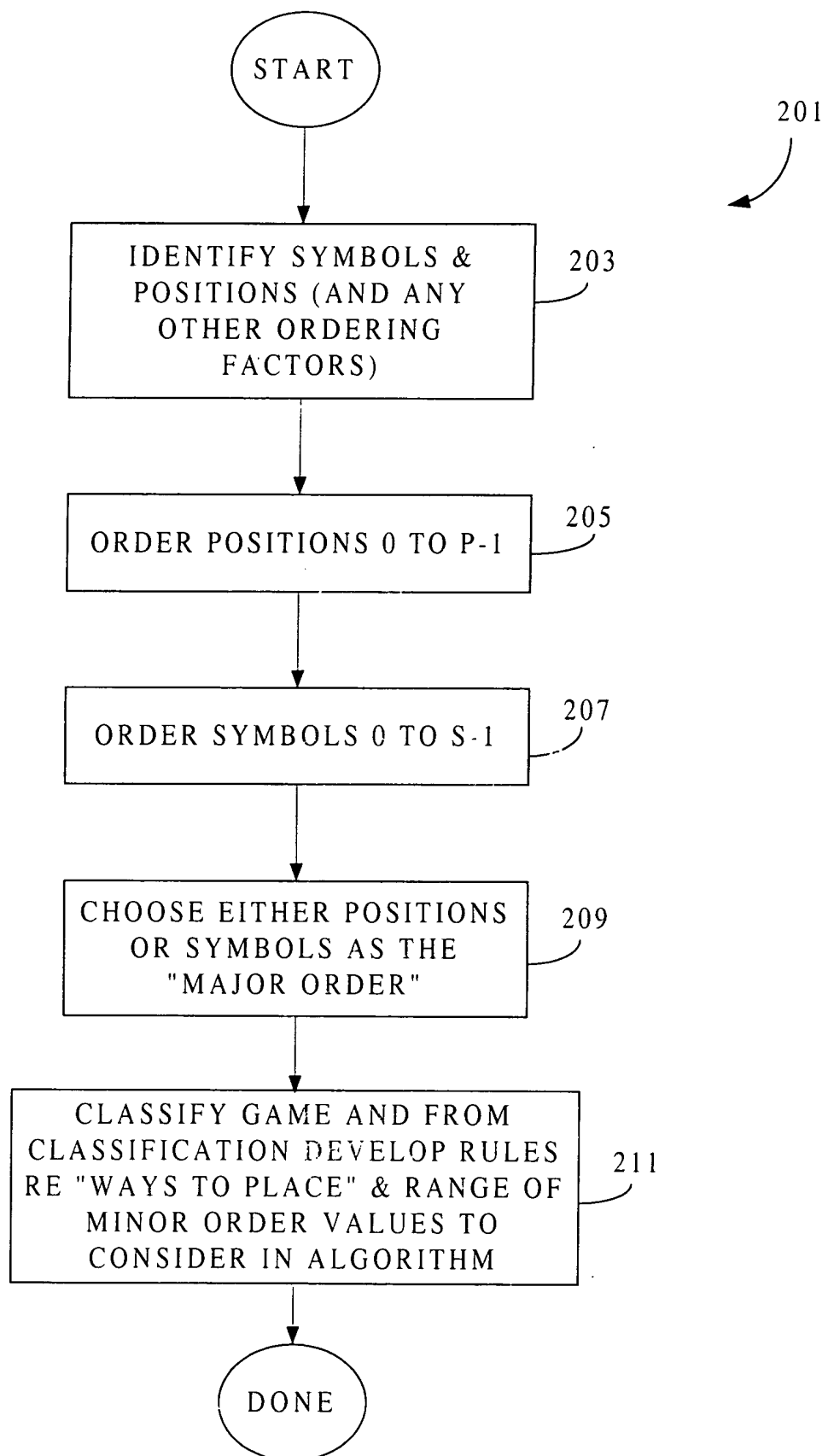


Figure 2

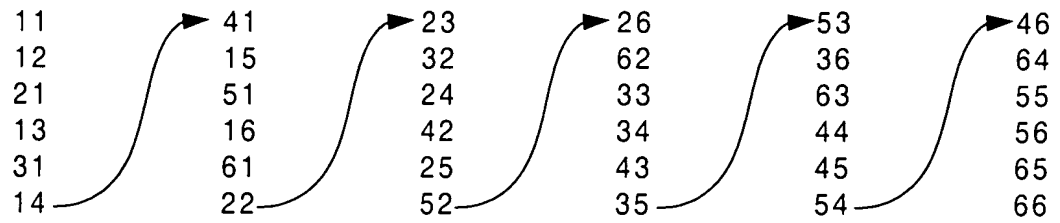
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2h	3h	4h	5h	6h
2h	3h	4h	5h	7h
2h	3h	4h	5h	8h
		⋮		
2h	3h	4h	5h	Ah
2h	3h	4h	6h	7h
2h	3h	4h	6h	8h
		⋮		
3h	4h	5h	6h	7h
3h	4h	5h	6h	8h
		⋮		
9s	10s	Js	Qs	Ks
9s	10s	Js	Qs	As
		⋮		
10s	Js	Qs	Ks	As

Figure 3

10005496 : 020102
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Symbols as Major Order (Two Dice)



Position as Major Order (Two Dice)

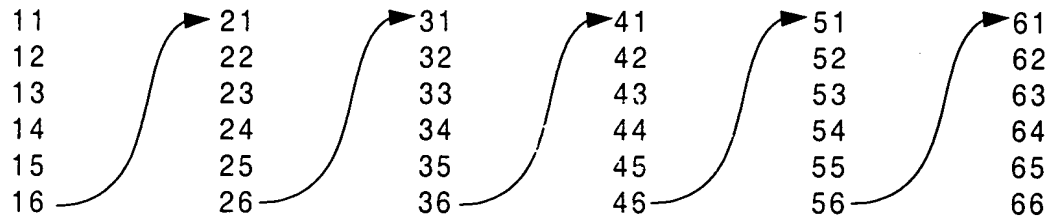


Figure 4

10006496-020102

Poker Hand Under Consideration	3H	KH	2D	7C	4S
number skipped over at position P=0	2H	3H	4H	5H	6H
	2H	3H	4H	5H	7H
	⋮				
	2H	10S	JS	QS	KS
	2H	JS	QS	KS	AS
	3H	4H	5H	6H	7H
	3H	4H	5H	6H	8H
	⋮				
	3H	4H	JS	QS	KS
	3H	4H	QS	KS	AS
number skipped over at position P=1	3H	5H	6H	7H	8H
	3H	5H	6H	7H	9H
	⋮				
	3H	QH	JS	QS	KS
	3H	QH	QS	KS	AS
	3H	KH	AH	2D	3D
	3H	KH	AH	2D	4D
	⋮				
	10S	JS	QS	KS	AS
	⋮				

Ways to place 3H 4H,

Figure 5

201020-96490001

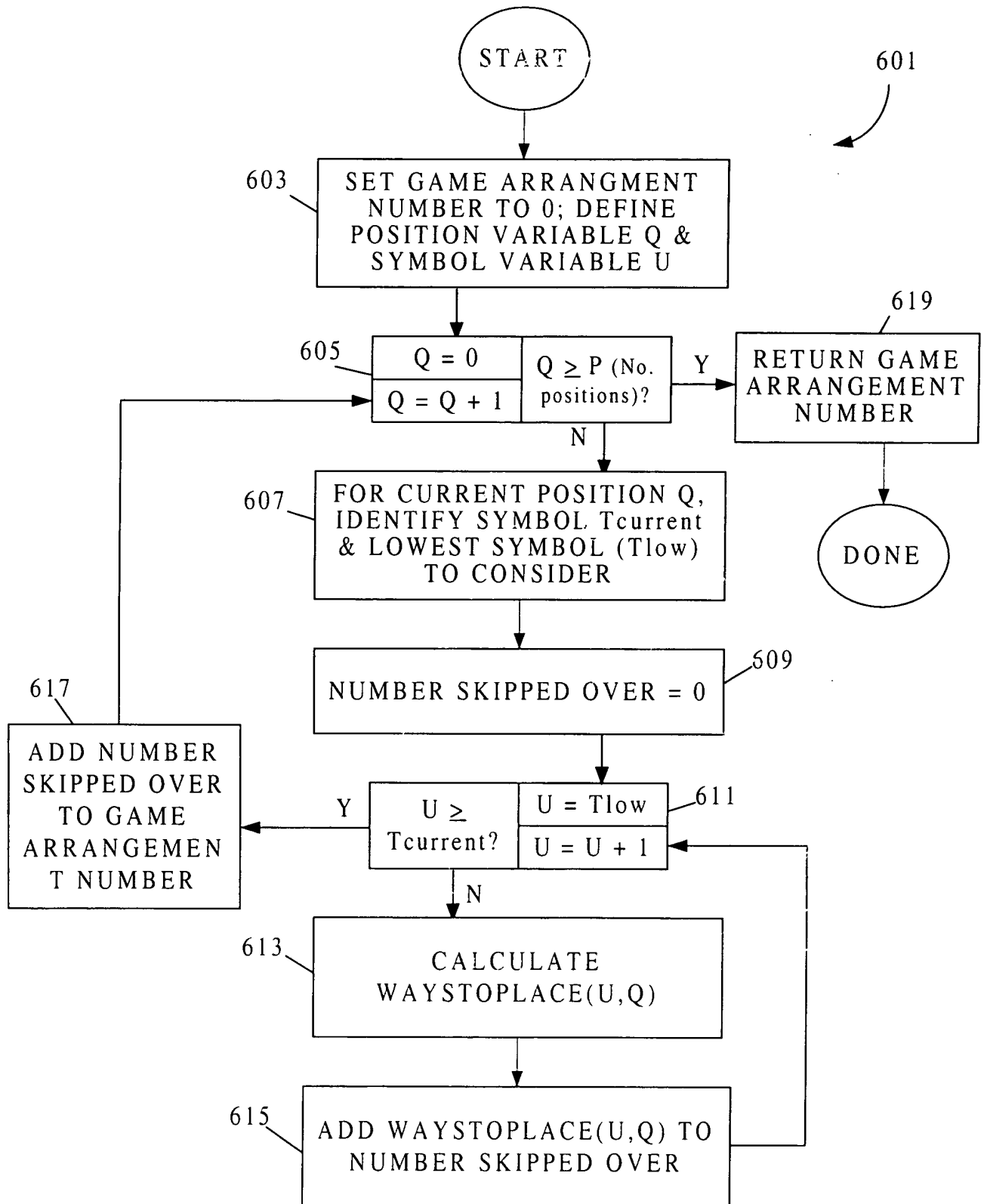


Figure 6

Convert KH, 7C, 4S, 8D, 3H to a number

Order the Cards! → 3H, KH, 8D, 7C, 4S

Start with # = 0

Position Q = 0

Symbol T = 1 (3H) 3H - - -

U = 0 (2H)

Compute # of ways to place 2H - - - - (choose (52-0-1, 5-0-2))
= 249,900

= 0 + 249,900 = 249,900

Position Q = 1, T_{current} = KH, T_{Low} = 4H; 3H KH - - -

U = 2 (4H)

Compute # of ways to place 3H 4H - - -
= 18,424

= 249,900 + 18,424 = 268,324

U = 3 (5H)

Compute # of ways to place (3H 5H - - -) = 17,296

= 268,324 + 17,296 = 289,620

U = 4 (6H)

Compute # of ways to place (3H 6H - - -) = 16,215

= # + 16,215 = 301,835

U = 5 (7H)

Compute # of ways to place (3H 7H - - -) = 15,180

= # + 15,180 = 317,015

U = 6 (8H)

Compute # of ways to place (3H 8H - - -) = 14,190

= # + 14,190 = 331,205

U = 7 (9H)

Compute # of ways to place (3H 9H - - -) = 13,244

= # + 13,244 = 344,449

U = 8 (10H)

Compute # of ways to place (3H 10H - - -) = 12,341

= # + 12,341 = 356,796

Figure 7A

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U = 9 (JH)

Compute # of ways to place (3H JH - - -) = 11,480

= # + 11,480 = 368,270

U = 10 (QH)

Compute # of ways to place (3H QH - - -) = 10,660

= # + 10,660 = 378,930

U = 11 (KH) This our symbol T. Stop and go to the next position.

Position Q = 2, Symbol T = 19 (8D)

by placing this card

#s skipped over by (3H - - - -)

= ways to place (2H - - - -)

by placing this card

skipped over by (3H KH - - -)

= ways to place (3H 4H - - -)

+ ways to place (3H 5H - - -)

+ ways to place (3H 6H - - -)

+ ways to place (3H 7H - - -)

+ ways to place (3H 8H - - -)

+ ways to place (3H 9H - - -)

+ ways to place (3H 10H - - -)

+ ways to place (3H QH - - -)

skipped over by (3H KH 8D - -)

= ways to place (3H KH 8D - -)

+ ways to place (3H KH AH - -)

+ ways to place (3H KH 2D - -)

+ ways to place (3H KH 3D - -)

+ ways to place (3H KH 4D - -)

Figure 7B

	Position Dependent	Position Independent
With Replacement	$\exp(x, y)$ $0 \leq U \leq T_{\text{curr}}$ $T_{\text{low}} = 0$	$C(x, y)$ $T_{\text{prev}} \leq U \leq T_{\text{curr}}$ $T_{\text{low}} = T_{\text{prev}}$
Without Replacement	$P(x, y)$ $0 \leq U \leq T_{\text{curr}}$ <p>(excluding previously used values)</p> $T_{\text{low}} = 0$	$C(x, y)$ $T_{\text{prev}} < U < T_{\text{curr}}$ $T_{\text{low}} = T_{\text{prev}} + 1$

Figure 8

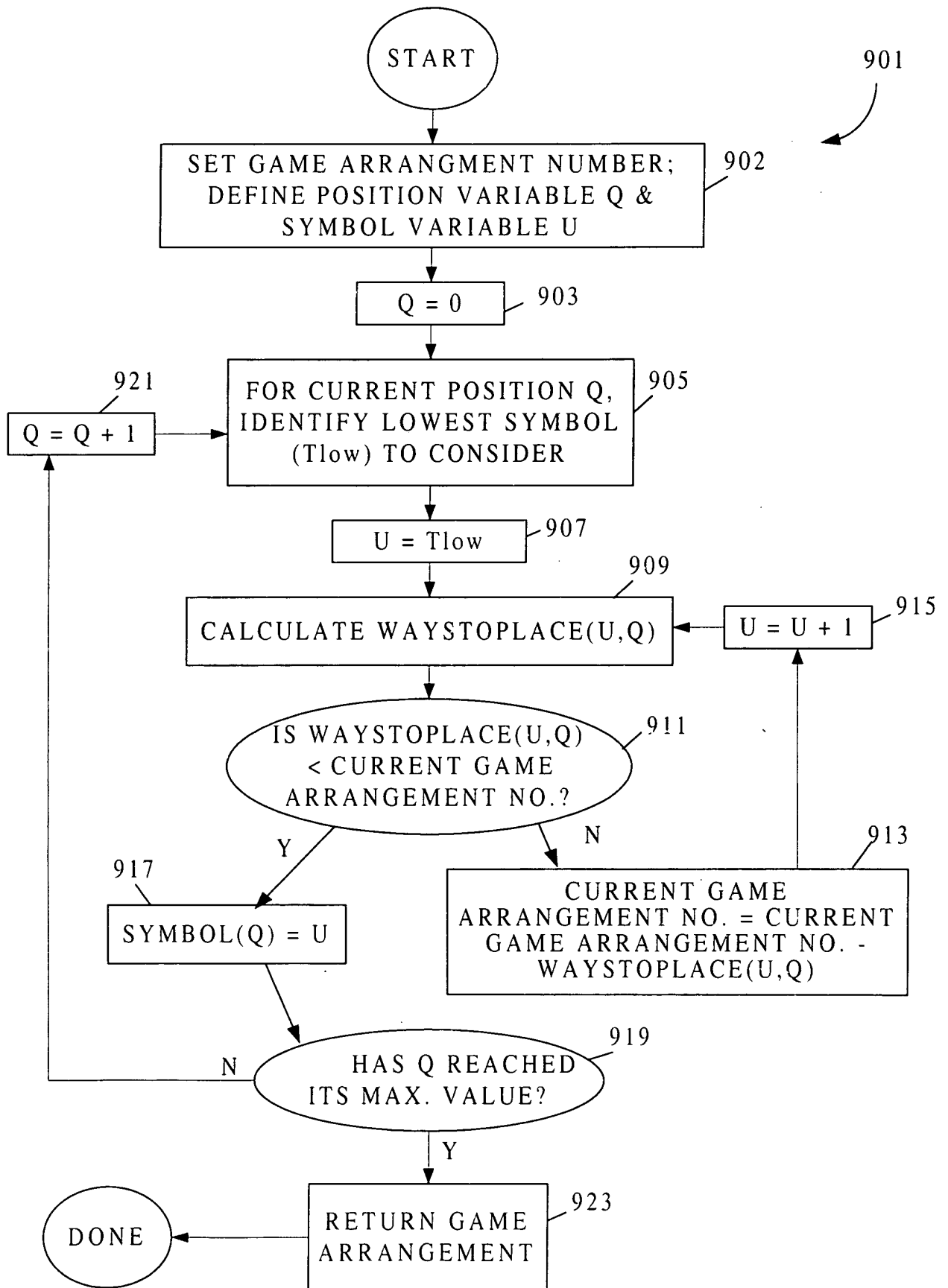


Figure 9

Figure 10

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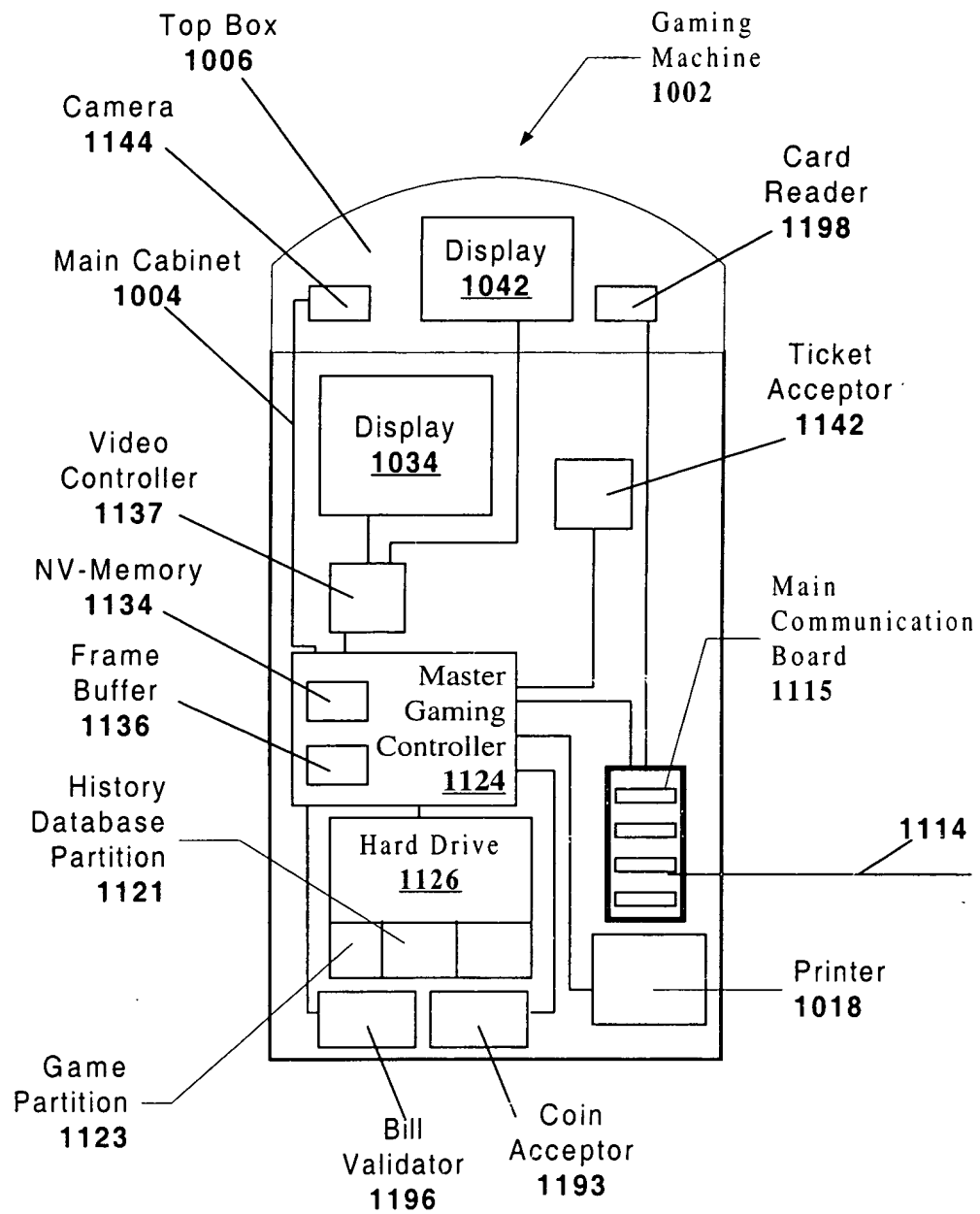


Figure 11